MoU V - Phase 1 Inception report

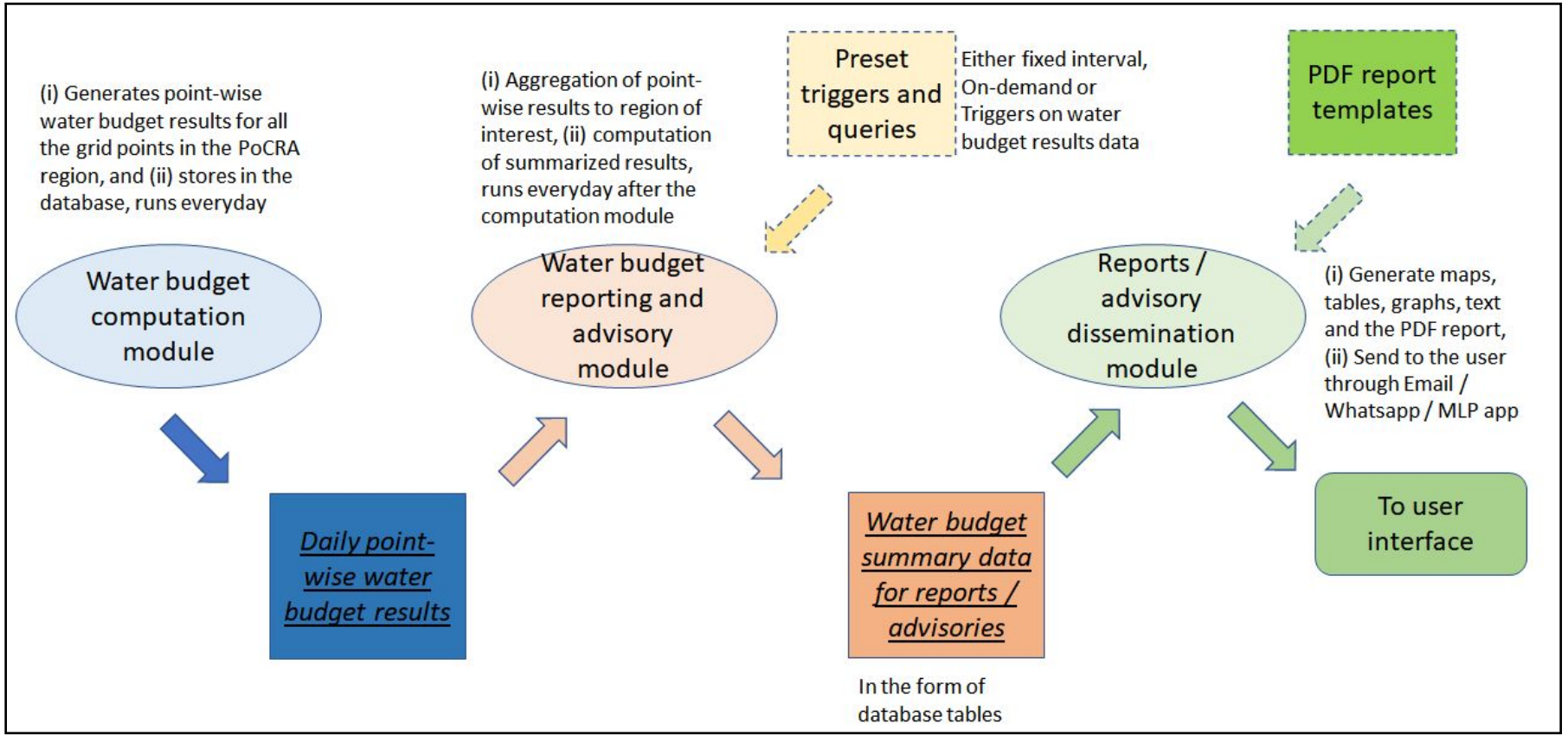
IITB

8th June 2023

Outline

MoU V Component
A - Advisory and reporting framework
B - District climate resilience vulnerability and response framework
C - District climate resilience extension framework
D - Rabi planning framework
E - Improvements and refinements to the model

A - Advisory and reporting framework



B - District climate resilience vulnerability and response framework

Current focus - meetings with DSAO Beed and Wardha

The main agenda of this meeting would be as follows:

(a) To give a brief about the PoCRA – IITB engagement over last four years

(b) To show the water budget charts and dashboards and explain the importance of these for planning better interventions

(c) To explain the need for strong and robust water budget extension framework at the district and village levels

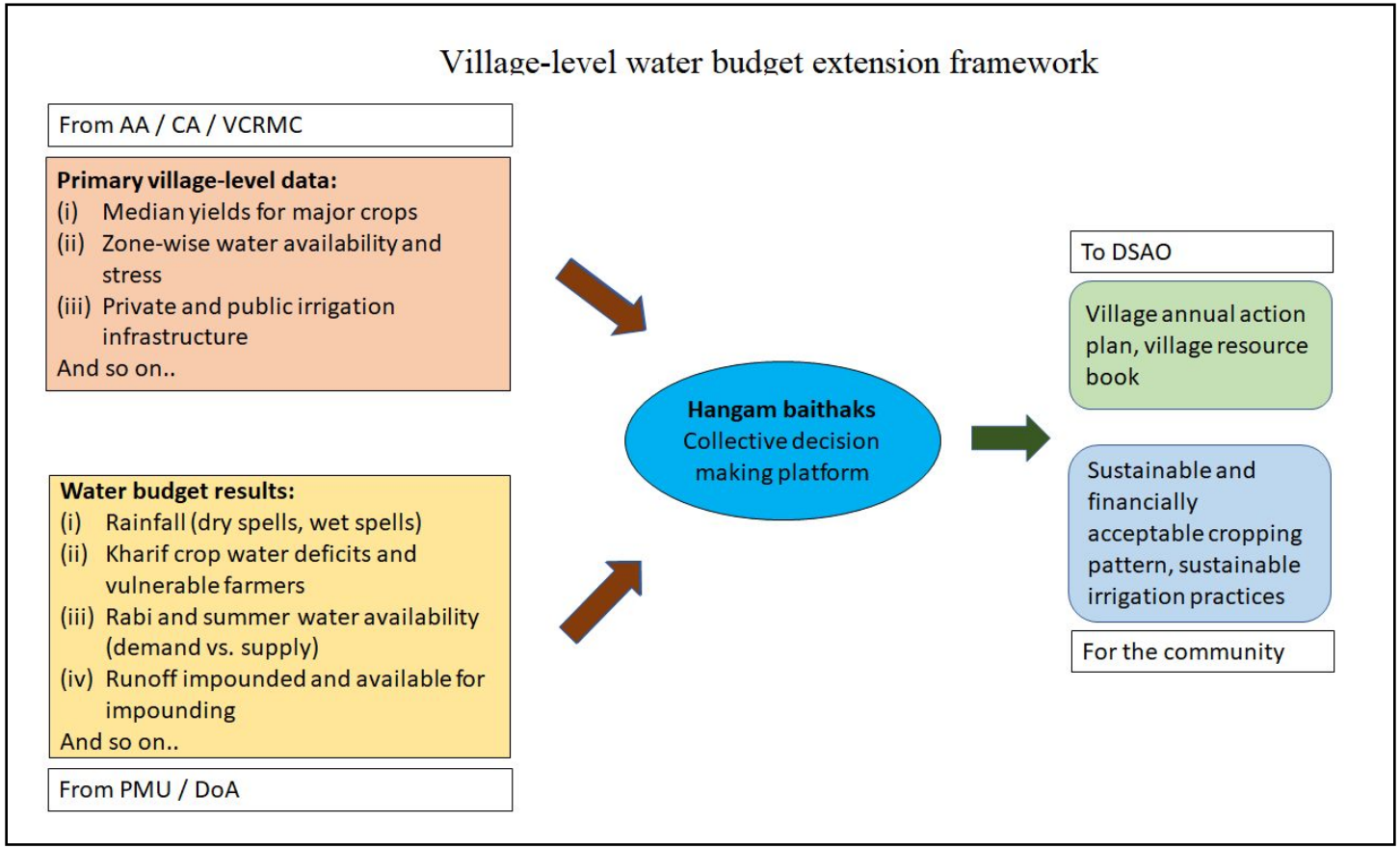
(d) To explain the agenda for the coming monsoon and post-monsoon seasons (i.e. village level and district level exercises as planned in the MoU)

(e) To get access to required secondary datasets

(f) To understand the current infrastructure at the DSAO with regards to data visualization, data processing, dissemination of advisories to taluka and sub-divisional offices etc.

(g) To understand the demands of the DSAO with regards to extreme climate events, dry spells, wet spells, compensation, planning of NRM interventions, targeting of beneficiaries etc.

C - District climate resilience extension framework



C - District climate resilience extension framework

Village selection criteria

A. Logistical
   - Distance and time required from the base station in the district, Village area and village population

B. Climate and biophysical factors
   - Rainfall over last 3 years , Area under different soil types, Percent of non-agriculture / Forest area , Rabi area and cropping pattern

C. Demographics and census (socio-economic) data
   - Percent of SC and ST population, Male and Female literacy, Drinking water situation as per census 2011 data, Other amenities data from census 2011 such as tap connections, cooking fuel, presence of two-wheelers, bank accounts etc.

D. Presence of motivated state / project officials
   - To be suggested by the DSAO office or concerned TAO offices

E. Other PoCRA indicators such as DBT data
   - Total landholders, total farmers registered for DBT, Total DBT applications disbursed, Total DBT amount

C - District climate resilience extension framework

Village no.	Clusters	Taluka	Probable villages in the clusters
1	523_gv-59_01 523_gv-59_03 523_gv-63a_03	Patoda Shirur Kasar	Amalner, Karegaon, Pangri, Hiwarsinga, Limba
2	523_gv-69_01 523_gv-73_01 523_gv-73_03	Beed	Warwati, Jarud, Babhal Khunta, Kutewadi, Maujwadi, Shivni, Loladgaon, Kurla, Mhalaspur, It
3	523_gv-56_03 523_gv-64_02 523_gv-64_02	Georai	Rakshasbhuvan, Bagpimpalgaon, Antarvali Bk.
4	523_gv-68_01	Georai	Rui, Dhanora, Nipani Jawalka
5	523_gv-80_01	Wadwani	Hiwargavhan, Pusra, Tigaon
6	523_mr-6_01	Kaij	Massajog, Ekruka, Kalegaon Ghat

C - District climate resilience extension framework

Village no.	Clusters	Taluka	Probable villages in the clusters
1	504_wr-27_01	Arvi	Bodad, Wai, Gaurkheda
2	504_wrwbd-4_04	Karanja	Ambhora, Sindi Vihiri
3	504_wry-2_04	Wardha	Waifad, Lonsawali
4	504_wr-25_04	Deoli	Akoli, Wabgaon
5	504_wry-4_04, 504_wrw-3_01, 504_wrw-3_02	Wardha, Seloo, Samudrapur	Bhuigaon, Neri, Kinhala, Hamdapur, Pardi
6	504_wry-6_01, 504_wrw-1_02	Hinganghat	Chanki, Rohankheda, Tembha,

E - Improvements and refinements to the water budget model

Ongoing tasks

(i) Incorporation of improved datasets

a. NBSS soil data:

b. Crop Kc values:

(ii) Scaling up to non-pocra villages

(iii) Improvements in the efficiency of the model with regards to time taken to compute water budget for the whole PoCRA region.

a. Separation of computation and reporting (and importantly, aggregation) into two separate modules

b. Smart design of HRUs

c. Getting rid of costly QGIS operations and switching completely to PostGIS

d. Smart storage of results